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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,338	10/31/2001	Joseph G. Souza	MS164031.1 (4934)	5199
321	7590	01/28/2005	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			PERVEEN, REHANA	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	10/003,338	SOUZA ET AL.	
	Examiner	Art Unit	
	Rehana Perveen	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

R sponse to Amendment

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Urade et al, Patent No. 6,272,644.

Urade et al were cited as prior art in the previous office action. The rejections are maintained and repeated below.

As to claims 1, 17, 25, and 27, Urade et al teach sending an idle request from a first device (USB Hub 11, figure 3) to a second device (host computer) when the first device is ready to suspend, and the first device waiting to receive a call from the second device to a callback function (embedded function 45, figure 4) associated with the first device to suspend the first device, wherein the first device is connected to the second device via a communication medium (Root port 13, figure 3, col. 4 lines 53-65).

As to claim 2, Urade et al teach the second device is a computer (host computer, col. 3 lines 40-43) and the first device is a peripheral component associated with the computer (USB Hub 11, figure 3).

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As to claim 3, Urade et al teach the peripheral component is selected from a group consisting of a composite device, a root hub, and a controller (USB Hub 11, figure 3).

As to claims 4 and 26, Urade et al teach the sending and waiting occur via a driver controlling the first device (Embedded Function 45, figure 3).

As to claim 5, Urade et al teach the first device has an active state and an idle state and wherein the first device is ready to suspend when in the idle state (col. 4 lines 7-65 and col. 6 lines 44-54).

As to claim 6, Urade et al teach the first device comprises one of a plurality of nodes organized in a tree structure and the first device comprises a child node of the second device (inherent for the USB structure, col. 3 lines 21-59).

As to claims 8, 28, 29, and 32, Urade et al teach the nodes in the tree are connected via a USB and suspending a USB host controller (figure 3, col. 3 lines 21-59).

As to claim 9, Urade et al teach the first device has one or more child nodes in the tree structure (devices connected to ports 1-4, figure 3), and wherein the first device is ready to suspend when each of the one or more child nodes of the first device is

ready to suspend (inherently when the hub is powered down, all connected devices are also powered down, figure 3).

As to claims 10-12, Urade et al teach the first device receiving an idle request from at least one of the child nodes of the first device and propagating (relaying) the idle request, by inductively traversing the tree structure, from the first device to a controller at the root of the tree structure (figures 3 and 5, col. 4 line 7- col. 5 line 9).

As to claim 13, Urade et al teach propagating the idle request comprises transmitting the received idle request from the first device to the second device if the first device is ready to suspend and if the first device has received an idle request from each of the child nodes of the first device (col. 4 line 48 – col. 5 line 9).

As to claim 14, Urade et al teach determining whether the first device has received an idle request from each of the child nodes of the first device, waiting receive an idle request from each of the child nodes if an idle request from each of the child nodes has not been received, and submitting an idle request to the second device if the first device has received an idle request from each of the child nodes (col. 6 lines 59-61).

As to claims 15, 16, 30, and 31, Urade et al teach receiving an idle request comprises receiving an I/O control request, which comprises an I/O request packet, by the controller from one or more child device (col. 5 line 61 – col. 6 line 16).

As to claims 18-22, Urade et al teach waking the first device, waking occurs in response to the first device signaling the second device that the first device is ready to wake or the second device signaling the first device to wake or one of the child nodes signaling the first device to wake (col. 5 lines 10-60), and waking comprises resetting the sent idle requests (col. 6 lines 66-67).

As to claim 23, Urade et al teach sending a cancel request from the first device to the second device when the first device is no longer ready to suspend, said cancel request occurring after sending the idle request (col. 5 lines 1-28).

As to claim 24, Urade et al teach a third device sending an idle request to the second device when the third device is ready to suspend and suspending simultaneously with the first device, said third device having I/O control and function independent from the first device (inherent for an USB network of more than one USB Hub connected to the host computer, col. 1 lines 9-47).

Claims 7 and 33-50 are directed to the computer readable media of method claims 1-6 and 8-32. Urade et al teach the method as set forth in claims 1-6 and 8-32.

Therefore, Urade et al also teach the computer readable media as set forth in claims 7 and 33-50.

Response to Arguments

Applicant's arguments filed 06 January 2005 have been fully considered but they are not persuasive.

Applicants argue to the substance that (1) Urade et al do not teach independently or selectively suspending one or more devices connecting to a USB hub, while maintaining other devices connecting to the same USB hub in active, idle or suspended state; and (2) Urade et al is entirely silent as to either a routine attribute or context attribute executing to suspend a device.

As to point (1), The examiner agrees that Urade et al do not teach independently or selectively suspending one or more devices connecting to a USB hub, while maintaining other devices connecting to the same USB hub in active, idle or suspended state. However, the examiner maintains the rejection since Urade et al teach all of the limitations to the extent it has been as claimed. Specifically, Urade et al teach at least one of a plurality of first devices (the examiner is equating the first device to a USB hub). In the case when there is only one device to be suspended, there is no selective suspension activated. Therefore, Urade et al clearly teach sending an idle request from a first device (USB Hub 11, figure 3) to a second device (host computer) when the first

device is ready to suspend, and the first device waiting to receive a call from the second device to a callback function (embedded function 45, used for both suspend and resume signals, figure 4, col. 5 lines 10-28) associated with the first device to suspend the first device. Applicants' argument is moot to the extent it has been claimed.

As to point (2), in response to applicants' argument that Urade et al is entirely silent as to either a routine attribute or context attribute executing to suspend a device, the examiner disagrees. Urade et al clearly teach executing software to suspend a device. Urade et al do not detail the associated well-known attributes such as a routine attribute or a context attribute that is inherently a part of such function execution.

Therefore, applicants' argument is moot.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rehana Perveen whose telephone number is 571-272-3676. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Rehana Perveen
Primary Patent Examiner
Technology Center 2100